

Amendments to the Claims

This listing of the claims replaces all previous listing of claims.

Listing of the Claims

1-25. (Canceled)

26. (Currently Amended) A method of preparing density-controlled beads dispersible in a liquid medium for incorporation into cosmetic products, with the beads comprising as ingredients:

(i) an active agent;

(ii) an effective quantity of a density-control agent that reduces the density of the resulting beads to promote uniform dispersion in the liquid medium by providing the bead with a desired bulk density; and

(iii) a gelling agent that is liquid at elevated temperatures,

the method comprising:

(a) dissolving the gelling agent in water at an elevated temperature sufficient to dissolve the gelling agent to form a first mixture, the gelling agent being dissolved in a proportion of gelling agent to water effective to form a gel at a lower temperature than the elevated temperature;

(b) dispersing the density-control agent in water or oil at room temperature to form a second mixture;

(c) adding the second mixture to the first mixture to form a third mixture;

(d) cooling the third mixture to a discharge temperature below the elevated temperature but above the gelling point of the first mixture;

(e) discharging the third mixture through a needle to form droplets or globules, the third mixture being discharged while at the discharge temperature; and

(f) cooling the droplets or globules to form beads;

~~wherein said density control agent is present in a quantity sufficient to provide a desired gel bead density.~~

27. (Previously Presented) A method according to claim 26 wherein cooling the droplets or globules includes exposing the drops to a liquid maintained at a temperature below the third mixture's gelling point, whereby the drops are formed into gel beads incorporating the density-reducing agent.
28. (Previously Presented) A method according to claim 26 wherein the gel beads have an average particle diameter of from about 0.1 mm to 10 mm, and said water soluble gelling agent comprises agar, and wherein said carrier comprises water and said liquid to which said drops are exposed is hydrophobic.
29. (Previously Presented) A method according to claim 28 wherein the first temperature is about 90°C.
30. (Previously Presented) A method according to claim 26 wherein a water-soluble restraining polymer is included in the gel beads and wherein said carrier comprises water and said liquid to which said drops are exposed is hydrophobic.
31. (Previously Presented) A method according to claim 30 wherein an active agent is added into said first, second, or third mixture and wherein said carrier comprises water and said liquid to which said drops are exposed is hydrophobic.
32. (Previously Presented) A method according to claim 31 wherein the restraining polymer used has a molecular weight of at least 50,000 daltons and is effective to prevent egress of the restraining polymer from the gel, the restraining polymer having retention groups to bind the active agent to the restraining polymer for retention in the gel beads, being present in a proportion effective to deliver an effective amount of the active agent and being selected from the group consisting of polyquaternium 11, polyquaternium 24, laurdimonium hydroxyethylcellulose, cocodimonium hydroxyethylcellulose, steardimonium hydroxyethylcellulose, quaternary ammonium substituted water-soluble polysaccharides, alkyl quaternary celluloses and polypeptides having or provided with retention groups to retain the active agent.
33. (Previously Presented) A method according to claim 31 wherein the gel beads are manually crushable on the skin to increase the surface area of the gel particles and expose the restraining polymer to a topical body surface for release of the active agent.

34. (Previously Presented) A method according to claim 32 wherein the gel beads comprise about 0.2 to about 7.5% by weight restraining polymer based on the weight of the gel beads.

35. (Previously Presented) A method according to claim 26 wherein the discharge temperature is about 45°C.

36. (Previously Presented) A method according to claim 26 wherein the density-control agent is pre-dispersed in oil.

37. (Previously Presented) A method according to claim 26 comprising admixing ~~an~~ the active agent in step (a) or step (b) whereby the active agent is incorporated in the gel beads.

38. (Previously Presented) A method according to claim 26 wherein the density-control agent comprises heat-expandable microspheres.

39. (Previously Presented) A method according to claim 26 comprising pre-dispersing a pigment in water and mixing the pre-dispersed pigment with the second mixture before adding the second mixture to the third mixture.

40. (Previously Presented) A method according to claim 26 wherein the gel beads comprise about 1.5 by weight gelling agent based on the weight of the gel beads.

41. (Previously Presented) A method according to claim 26 wherein the gel beads comprise about 0.01% to about 5% by weight density-control agent based on the weight of the gel beads.

42. (Previously Presented) A method according to claim 26 wherein the gel beads comprise about 0.02% to about 0.1% by weight density-control agent based on the weight of the gel beads.

43-45. (Cancelled)

46. (Currently Amended) A method according to claim 31 wherein the density-control agent comprises a plurality of hollow particles, wherein said plurality of hollow particles comprise a gas within a spherical shell, wherein the gas remains within the spherical shell unless said shell is ruptured.

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47. (Previously Presented) A method according to claim 46 wherein the plurality of hollow particles used are gas-filled thermoplastic microspheres.

48. (Canceled)

49. (Previously Presented) A method according to claim 26, wherein the density-control agent is dispersed in a quantity sufficient to give the particles a bulk density of from about 0.8g/ml to about 0.1g/ml.

50. (Previously Presented) A method according to claim 26, wherein the density-control agent is dispersed in a quantity sufficient to give the particles a bulk density less than or equal to the liquid medium.

51. (Previously Presented) A method as in claim 26, wherein the density-control agent used comprises hollow particles.

52. (Previously Presented) A method as in claim 53, wherein the density-control agent used comprises hollow particles.

53. (Previously Presented) A method of preparing density-controlled beads dispersible in a liquid medium for incorporation into cosmetic products, comprising:

(a) mixing an active agent and a bead material that is liquid at elevated temperatures, said bead material comprising a restraining polymer;

(b) distributing said restraining polymer throughout said bead material;

(c) adding a density reducer to the resultant mixture, the density reducer comprising entrapped gas within a material defining a hollow particle which retains said gas unless said material is ruptured, said density reducer being introduced into the mixture in a quantity sufficient to provide a desired gel bead density;

(e) forming the resultant mixture into droplets or globules with the density reducer encapsulated therein; and

(f) cooling the droplets or globules to form beads.

54. (Cancelled)

55. (Currently Amended) A method of preparing density-controlled beads dispersible in a liquid medium for incorporation into cosmetic products, comprising:

(a) mixing an active agent and a bead material that is liquid at elevated temperatures, said bead material comprising a restraining polymer;

(b) distributing said restraining polymer throughout said bead material;

(c) adding a density reducer to the resultant mixture, the density reducer comprising entrapped gas within a temperature-sensitive expandable thermoplastic microsphere;

(d) controlling the density and volume of said density reducer by adjusting the temperature during mixing of said expandable thermoplastic-density control agent microsphere;

(e) forming the resultant mixture into droplets or globules with the density reducer encapsulated therein; and

(f) cooling the droplets or globules to form beads.

56. (Previously Presented) The method of claim 27, wherein said carrier comprises water and said liquid to which said drops are exposed is hydrophobic.